## => d his full

(FILE 'CAPLUS' ENTERED AT 15:40:23 ON 10 SEP 2005)

DEL HIS

L1 18 SEA ABB=ON PLU=ON (ETHOXYLATE (W) ALKYL (W) PHENOL OR NONYLPHENOX

Y(W)POLY(W)ETHYLENEOXY(W)ETHANOL OR OCTYLPHENOXY(W)POLY(W)ETHYL

ENEOXY (W) ETHANOL)

L2 4 SEA ABB=ON PLU=ON L1 AND PIGMENT

=> d 1-4 bib abs

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APPLICANT
L2
       ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ΑN
       2005:570222 CAPLUS
DN
       143:98983
TI
       Process for conditioning azo pigments with surfactants of
       ethoxylate alkyl phenols
IN
       Sung, Edward H.; Robertson, George H.; Velasquez, Humberto A.
PA
SO
       U.S. Pat. Appl. Publ., 5 pp.
       CODEN: USXXCO
DT
       Patent
       English
LA
FAN.CNT 1
       PATENT NO.
                                                                APPLICATION NO.
                                     KIND
                                                DATE
                                                                                                    DATE
                                                                 ______.
                                     ____
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PΙ
       US 2005139128
                                      A1
                                                20050630
                                                                 US 2003-751162
                                                                                                     20031231
       WO 2005065298
                                      A2
                                                                 WO 2004-US43589
            2005065298

A2 20050721 WO 2004-US43589 20041229
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                                20050721
                                                                                                     20041229
PRAI US 2003-751162
                                                20031231
                                      Α
       A process for conditioning an organic azo pigment comprises the
       steps of: (a) preparing an aqueous slurry of an azo pigment in the
       presence of a surfactant of ethoxylate alkyl
       phenols (e.g., nonylphenoxy poly(
       ethyleneoxy)ethanol) and an alkali (e.g., NaOH); and (b)
       heating the slurry at a temperature above about 70° resulting in
       conditioned organic azo pigment. The azo pigment is
       selected from the group consisting of naphthol reds, monoazo yellows,
       monoazo oranges, diarylide yellows and diarylide oranges. The conditioned
       azo pigment is useful for printing inks and coating such as
       solvent-based paints, water-based paints, and enamel-based paints.
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L2 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
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AN 1999:557744 CAPLUS

DN 131:171597

TI Universal coloring compositions

IN Goebel, Junghanns Carlo; Pagnoni, Angelo

PA J Colors S.p.A., Italy

SO Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

L WIA .	CTAT																
	PA'	<b>TENT</b>	NO.			KIND DATE				APPLICATION NO.					DATE		
				- <b></b> -			-								_		
ΡI	ΕP	9377	60			A1		1999	0825	EP	1998-	-2028	65		19	980	827
	ΕP	9377	60			B1		2004	0225								
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB, G	R, IT,	LI,	LU,	NL,	SE,	MC,	PT,
			IE,	SI,	LT,	LV,	FI,	RO								•	-
	ΙT	1298	440			B1		2000	0110	ΙŤ	1998-	-MI35	0		15	9802	223
	ΑT	2603	24			E		2004	0315	AT	1998-	-2028	65		19	9808	827
	PT	9377	60			T		2004	0630	PT	1998-	-2028	65		19	9808	827
	ES	2215	271			T3		2004	1001	ES	1998-	2028	65		19	9808	827
PRAI	IT	1998	-MI3	50		Α		1998	0223								

AB Universal coloring paste compns. comprise pigments, dispersants and solvents, the dispersants are polymeric dispersants chosen from copolymers based on polyurethanes or polyacrylates functionalized with amine groups, and their solns. These compns. are particularly suitable for mixing with a wide range of resinous paint bases, in the preparation of colored paints.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L2 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
- AN 1970:68303 CAPLUS
- DN 72:68303
- TI Linseed oil-in-water emulsion paint with improved physical properties
- IN Princen, Lambertus H.
- PA United States Dept. of Agriculture
- SO U.S., 4 pp.

CODEN: USXXAM

- DT Patent
- LA English
- FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 3488202	~	19700106	US 1967-641421	19670518
PRAI US 1967-641421	A A	19670518	05 1967-041421	19670516

AB From 0.77 to 2.34% of a fatty quaternary ammonium emulsifier (I) and 0.31-1.14% of a nonionic emulsifier (II) are used in the preparation of a linseed oil-in-H2O emulsion paint having good shelf stability, mildew resistance, and redispersibility and whose dry coatings show no damage from 24 hr of H2O immersion. I may be a C16-18 alkyl trimethyl and (or) C16-18 dialkyl dimethylammonium chloride and is used in an amount of 0.575-1.46% exclusive of the vehicle. II may be an equal mixture of sorbitan trioleate and nonylphenoxy poly( ethyleneoxy)ethanol. Thus, an aqueous phase containing Arquad 2HT-75 (an aqueous iso-PrOH solution of a cationic dialkyldimethylammonium chloride in which the alkyl groups are C 18 and C16 in a 3:1 ratio) 5.2, Tween 60 [poly(oxyethylene) sorbitan monostearate] emulsifier 2.1, ethylene glycol 13.0, and distilled H2O 241 g was mixed with 134 g of an oil phase containing Pb naphthenate 2.23, Co naphthenate 1.15, and nonbodied linseed oil 96%. Ten g of distilled H2O was added and the whole emulsified in a Lourdes Volumixer at 800 rpm at 50°. After being allowed to cream overnight, the lower layer was transferred to a mixing bowl and then stirred while slowly adding TiO2 180, ZnO 90, and hydroxyethyl cellulose 15 g. When the mixture was completely smooth, the creamed upper layer was added again and the mass mixed to provide a final emulsion paint having a nonleaching pH of 6.9. The finished paint contained linseed oil 19.1, TiO2 26.7, ZnO 13.3, a cationic emulsifier 0.77, a nonionic emulsifier 0.31, ethylene glycol 1. 92, 24% Pb and 6% Co naphthenates in a hydrocarbon solvent (drier solution) 0.67, hydroxyethyl cellulose 0.22, and H2O 37% by weight Triplicate films 5 mils thick were painted on 3 + 6-in. clean glass plates and permitted to air dry for 15, 20, and 30 min. The films dried for 15 min showed considerable damage from falling water, but those dried for at least 20 min were not damaged or loosened by its impact or chemical action. Other film replicates that had been permitted to dry in air for 24 hr and then immersed in water for 24 hr revealed absolutely no damage or loosening of the films. By comparison, films identically prepared with 2 com. available linseed oil emulsion paints and subjected to identical air drying and water immersion showed small blisters and even disintegration. After 12 months' storage, the above paint formulation showed little separation of pigments and was dispersed readily by hand mixing. A bodied linseed oil emulsion paint prepared by using the ingredients of this invention can be used to prepare films that resist the cascading effect of water after only 15 min of drying. By using a 1.5:1 mixture of dialkyldimethyl- and alkyltrimethylammonium chloride, a linseed oil emulsion paint was obtained that could be used to prepare films resistant to cascading water after 30 min drying.

- L2 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
- AN 1969:79409 CAPLUS
- DN 70:79409
- TI Stabilization of liquid detergents
- AU Grifo, Richard A.
- CS Cent. Res. Lab., GAF Corp., New York, NY, USA
- SO Detergent Age (1968), 5(10), 23-5 CODEN: DTGAAS; ISSN: 0096-0063
- DT Journal
- LA English
- AB A Me vinyl ether-maleic anhydride copolymer (I) is used as a stabilizer for heavy-duty liquid detergent formulations with a high solids content. A stabilized cold water liquid laundry detergent was prepared by dissolving 1% of an aqueous solution of 1% nonylphenoxy poly(
  ethyleneoxy)ethanol (II) containing 75% ethylene oxide in 31.1% H2O and heating the solution to 85°. I (0.99%) was added, followed by 1.8% of a 50% KOH solution A fluorescent brightener and a sulfonated ester brightener were premixed as a 10% slurry and added to give 1.2 and 0.8%, resp. A low-viscosity CM-cellulose was then added to give 0.5% followed by 1% of a blue pigment, 10% of a 36% Na silicate solution, 10% II containing 65% ethylene oxide, and 41.6% of a 60% solution
  - of K4P2O7.3H2O. The final composition had a 41.17% solids content, a d. of 1.3, a pH of 12, and a Brookfield viscosity of 800 cp. at 25° and was stable on storage for 1 week at 68 or 120°F. on centrifugation at 500 rpm. for 100 min. and at 4300 rpm. for 30 min. and through 4 freeze-thaw cycles of 0-80°F. NaOH and anhydrous Na2SiO3 were used in similar formulations prepared as dishwashing detergents. Fabrics washed in the detergent were tested for brightness and dishes were observed for spots and streaking after machine washing.

=> => d qu	ie 17 :	stat		
L3	8	SEA FILE=CAPLUS	ABB=ON PLU=	ON ("SUNG EDWARD"/AU OR "SUNG
		EDWARD H"/AU)		
L4			-	ON "ROBERTSON GEORGE H"/AU
L5	3	SEA FILE=CAPLUS	ABB=ON PLU=	ON ("VELASQUEZ HUMBERTO"/AU OR
		"VELASQUEZ HUMB	ERTO A"/AU)	
L6	52	SEA FILE=CAPLUS	ABB=ON PLU=	ON L3 OR L4 OR L5
L7	14	SEA FILE=CAPLUS	ABB=ON PLU=	ON L6 AND PIGMENT

=> d 1-14 bib abs

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L7
        ANSWER 1 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
AN
        2005:614620 CAPLUS
DN
        143:116831
TI
        Preparation of quinacridonequinones and substituted derivatives of same
        for use as pigments
IN
        Sung, Edward H.; Dong, James Z.; Robertson, George H.
PA
SO
        U.S. Pat. Appl. Publ., 6 pp.
        CODEN: USXXCO
DT
        Patent
        English
LA
FAN.CNT 1
        PATENT NO.
                                         KIND
                                                     DATE
                                                                         APPLICATION NO.
                                                                                                                DATE
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PΙ
        US 2005154207
                                           A1
                                                     20050714
                                                                         US 2004-757306
                                                                                                                 20040114
        WO 2005071017
                                           A1
                                                     20050804
                                                                         WO 2004-US44025
                                                                                                                 20041230
               W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
              LK, LK, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2004-757306
                                          Α
                                                     20040114
        The invention relates to a process for producing a quinacridonequinone by
        oxidizing a quinacridone in a liquid medium (e.g., sulfuric acid) with a
        non-metal oxidant (e.g., sodium peroxydisulfate).
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ANSWER 2 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
1.7
AN
       2005:570222 CAPLUS
DN
       143:98983
TI
       Process for conditioning azo pigments with surfactants of
       ethoxylate alkyl phenols
IN
       Sung, Edward H.; Robertson, George H.; Velasquez,
       Humberto A.
PA
       USA
       U.S. Pat. Appl. Publ., 5 pp.
SO
      CODEN: USXXCO
DT
       Patent
LΑ
       English
FAN.CNT 1
       PATENT NO.
                                     KIND
                                                DATE
                                                                 APPLICATION NO.
                                     ----
                                                                 US 2003-751162
ΡI
       US 2005139128
                                      A1
                                                20050630
                                                                                                    20031231
       WO 2005065298
                                      A2
                                                20050721
                                                                 WO 2004-US43589

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML.

                   RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
                   MR, NE, SN, TD, TG
PRAI US 2003-751162
                                      Α
                                                20031231
       A process for conditioning an organic azo pigment comprises the
       steps of: (a) preparing an aqueous slurry of an azo pigment in the
       presence of a surfactant of ethoxylate alkyl phenols (e.g., nonylphenoxy
       poly(ethyleneoxy)ethanol) and an alkali (e.g., NaOH); and (b) heating the
       slurry at a temperature above about 70° resulting in conditioned organic azo
       pigment. The azo pigment is selected from the group
       consisting of naphthol reds, monoazo yellows, monoazo oranges, diarylide
       yellows and diarylide oranges. The conditioned azo pigment is
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useful for printing inks and coating such as solvent-based paints,

water-based paints, and enamel-based paints.

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L7
         ANSWER 3 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ΑN
         2004:856729 CAPLUS
DN
         141:351473
TI
         Treatment of high performance pigments with etheramine salts
         Arthur, Kevin A.; Robertson, George H.; McLaren, George; Vilner,
IN
         Stanislav G.; Forbes, Ronald R.
         Sun Chemical Corporation, USA
PA
         U.S. Pat. Appl. Publ., 6 pp.
SO
         CODEN: USXXCO
DT
         Patent
LA
         English
FAN.CNT 1
         PATENT NO.
                                             KIND
                                                          DATE
                                                                               APPLICATION NO.
                                                                                                                         DATE
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         US 2004200387 '
ΡI
                                              Α1
                                                          20041014
                                                                               US 2003-412902
                                                                                                                         20030414
         US 6926768
                                              B2
                                                          20050809
         WO 2004092112
                                              A2
                                                          20041028
                                                                               WO 2004-US10461
                                                                                                                         20040406
         WO 2004092112
                                              А3
                                                          20050127
                W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
               W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                       TD, TG
PRAI US 2003-412902
                                                          20030414
GΙ
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$$\begin{array}{c} \text{CH}_3 \\ \text{I} \\ \text{SO}_3\text{H} \cdot \text{NH}_2\text{CH} \\ \text{CH}_2\text{CH}_2\text{CH}_2\text{O} \\ \\ \text{X} \\ \end{array} \\ \begin{array}{c} \text{CH}_3 \\ \text{CH}_2\text{CH} \\ \text{O} \\ \\ \text{Y} \\ \end{array} \\ \begin{array}{c} \text{CH}_3 \\ \\ \text{I} \\ \text{O} \\ \\ \text{I} \\ \end{array} \\ \begin{array}{c} \text{CH}_3 \\ \\ \text{I} \\ \\ \text{O} \\ \\ \text{I} \\ \end{array} \\ \begin{array}{c} \text{CH}_2\text{CH} \\ \text{O} \\ \\ \text{I} \\ \end{array} \\ \begin{array}{c} \text{CH}_3 \\ \\ \text{I} \\ \\ \text{I} \\ \end{array} \\ \begin{array}{c} \text{CH}_2\text{CH} \\ \\ \text{O} \\ \\ \text{I} \\ \end{array} \\ \begin{array}{c} \text{CH}_2\text{CH} \\ \\ \text{O} \\ \\ \text{I} \\ \end{array} \\ \begin{array}{c} \text{CH}_2\text{CH} \\ \\ \text{O} \\ \\ \end{array} \\ \begin{array}{c} \text{CH}_2\text{CH} \\ \\ \text{O} \\ \\ \end{array} \\ \begin{array}{c} \text{CH}_2\text{CH} \\ \\ \text{O} \\ \\ \end{array} \\ \begin{array}{c} \text{CH}_2\text{CH} \\ \\ \text{O} \\ \\ \end{array} \\ \begin{array}{c} \text{CH}_2\text{CH} \\ \\ \text{O} \\ \\ \end{array} \\ \begin{array}{c} \text{CH}_2\text{CH} \\$$

AB A method for enhancing the performance of a pigment composition containing an organic pigment, comprising adding 1-40 parts of an etheramine sulfonic acid salt I (A = organic pigment; x, y = 0-30; x + y ≥10; R = C2-18 alkyl; n = 1-4) to 100 parts organic pigment. The treated pigment is useful for ink base with good flow and gloss and improved transparency. Thus, 20 parts treated pigment obtained from copper phthalocyanine pigment Blue 15:3 81, copper phthalocyanine sulfonic acid 8 and Surfonamine MNPA 1000 (alkylphenoxypolyalkoxyamine) 11 parts was mixed with 80 parts nitrocellulose and diluted with nitrocellulose and solvent (2:1 ethanol and Et acetate), showing tinting strength 94.9%, gloss 59.0% and good transparency.

Ι

- L7 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
- AN 2004:780211 CAPLUS
- DN 141:285768
- TI Electrostatic charge developing toner containing  $\beta$ -type copper phthalocyanine
- IN Arthur, Kevin A.; Robertson, George H.; Funakura, Seiji
- PA USA
- SO U.S. Pat. Appl. Publ., 9 pp. CODEN: USXXCO
- DT Patent
- LA English
- FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	US 2004185362	<b>A1</b>	20040923	US 2004-415169	20040517		
PRAI	WO 2001-IB2866	W	20011024				

OS MARPAT 141:285768

The present invention provides an electrostatic charge developing toner which uses a  $\beta$ -type copper phthalocyanine pigment that has a BET sp. surface area of 90 m2/g or greater as determined by the nitrogen adsorption method. The present invention has the following conspicuous effects: specifically, vivid cyan images can be obtained, and in cases where the toner of the present invention is used in combination with yellow toners or magenta toners, the resulting images are superior in terms of color reproducibility. Furthermore, if the longitudinal-lateral aspect ratio of the pigment particles is 1-3, the hue is greenish, and the color reproducibility is further improved. A toner using the above-mentioned  $\beta$ -type copper phthalocyanine pigment which further contains a phthalocyanine pigment derivative also shows a good charging stability.

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L7
    ANSWER 5 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
AN
    2003:756879 CAPLUS
DN
    139:262269
    Continuous process for preparing pigment flushes for ink
TI
    compositions
IN
    Robertson, George H.
PA
SO
    U.S. Pat. Appl. Publ., 7 pp.
    CODEN: USXXCO
DT
    Patent
LΑ
    English
FAN.CNT 1
    PATENT NO.
                       KIND
                                         APPLICATION NO.
                              DATE
                                                               DATE
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PΙ
    US 2003177939
                        A1
                              20030925
                                         US 2002-102422
                                                               20020320
    WO 2003080740
        A1
                              20031002
                                         WO 2003-US8315
                                                               20030319
    EP 1485435
                        A1
                              20041215
                                        EP 2003-711636
                                                              20030319
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
                              20050531
                        Α
                                         BR 2003-8676
                                                               20030319
    US 2005092203
                        A1
                              20050505
                                         US 2004-956117
                                                               20041004
PRAI US 2002-102422
                        Α
                              20020320
    WO 2003-US8315
                        W
                              20030319
    A process for continuous production of pigment flushes and an apparatus
    for carrying out the process is provided. The pigment press
    cake is first fluidized, and then with a hydrophobic liquid organic medium are
    fed into a twin screw extruder. The kneading of the organic medium and press
    cake between the twin screws flushes the pigment into the organic
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medium. The water phase and flushed pigment phase are separated by removing at least part of the water phase through a vent in the extruder. An impediment to the flow of material downstream of the water vent causes

sufficient to remove the desired amount of the water phase. The flush works over the impediment and passes downstream to where vacuum is applied to remove residual water from the flush. The flush may be further combined

the flush to accumulate in the vented section for a period of time

with other ink ingredients to form an ink product.

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L7 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
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AN 2002:522305 CAPLUS

DN 137:80279

TI Process for the preparation of  $\beta$ -phase quinacridone

IN Sung, Edward; Kozak, Kathleen M.; Robertson, George H.
; Chamberlain, Terrence R.

PA USA

SO U.S. Pat. Appl. Publ., 6 pp. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

T. WIA	CNII				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 2002088377	A1	20020711	US 2001-755451	20010105
	US 6494949	B2	20021217		
	WO 2002053651	A2	20020711	WO 2002-US1	20020104
	WO 2002053651	A3	20021010		
	W: BR, CA				
	RW: AT, BE, C	H, CY, DE	, DK, ES, FI	, FR, GB, GR, IE,	IT, LU, MC, NL
	PT, SE, T	'R			

PRAI US 2001-755451 A 20010105

OS CASREACT 137:80279

AB The process comprises (a) mixing 2,5-dianilinoterephthalic acid, 2,5-dianisidinoterephthalic acid and polyphosphoric acid at ≥85°; (b) diluting the reaction mixture with water; (c) drowning the diluted mixture in a water-miscible alkanol (e.g., methanol); (d) heating the slurry at 100-130° and 20-50 psi; and (e) recovering the β-phase quinacridone.

- L7 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
- AN 2002:466111 CAPLUS
- DN 137:34523
- ΤI Toluenesulfonic acid swelling of perylene pigments
- IN Sung, Edward; Robertson, George H.; Arizo, Chris M.
- Sun Chemical Corporation, USA PA
- PCT Int. Appl., 7 pp. SO

CODEN: PIXXD2

DT Patent

English LA

FAN.C		******		
	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
PI	WO 2002048267	A2 20020620	WO 2001-US49878	20011101
	WO 2002048267	A3 20021031		
	W: CA	•		
	RW: AT, BE, CH,	CY, DE, DK, ES, I	FI, FR, GB, GR, IE, IT,	LU, MC, NL,
	PT, SE, TR			
	US 6464773	B1 20021015	US 2000-710272	20001110
PRAI	US 2000-710272	A 20001110		

AΒ Swelling of crude perylene pigment by treatment with about 2-10 parts toluenesulfonic acid at an elevated pressure at 40-140°C results in a pigment with very fine particle size and high tinctorial properties after digesting with water. Prior-art processes required 10-20 parts sulfuric acid. An example was given which used toluenesulfonic acid monohydrate and perylene red 179.

- L7 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
- AN 2002:444331 CAPLUS
- DN 137:21503
- TI Substantially pure gamma-phase quinacridone pigment of large particle size and its production
- IN Sung, Edward H.; Robertson, George H.; Velasquez, Humberto
- PA Sun Chemical Corporation, USA
- SO U.S., 4 pp. CODEN: USXXAM
- DT Patent
- LA English
- FAN.CNT 1

L TIN .	CIAI	Τ.																	
	PA	CENT :	NO.			KIN	D :	DATE			API	PLI	CAT	ION	NO.		D.	ATE	
							-										-		
PI	I US 6402829			B1		2002	0611		US	20	00-	7413	89		2	0001	220		
	US 2002073896			<b>A1</b>		2002	0620												
	CA	A 2433020			AA	;	2002	0627		CA	20	01-	2433	020		2	0011	220	
	WO 2002050074			A1	* :	2002	0627		WO	20	01-1	US50	106		2	0011	220		
	W: CA																		
		RW:	AT,	ΒE,	CH,	CY,	DE,	DK,	ES,	FI,	FF	₹,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,
			PT,	SE,	TR														
	ΕP	1353	920			A1	;	2003	1022		ΕP	20	01-	9915	27		2	0011	220
	ΕP	1353	920			B1	:	2004	0825										
		R:	AT,	ΒE,	CH,	DE,	DK,	ES,	FR,	GB,	GF	₹,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			IE,	FI,	CY,	TR													
	AT	2745	14			E	;	2004	0915		AT	20	01-	9915	27		2	0011	220
	PT	1353	920			T	:	2004	1029		PT	20	01-	9915	27		2	0011	220
	ES	2223	013			Т3	:	2005	0216		ES	20	01-	1991:	527		2	0011	220
PRAI	US	2000	-741	389		Α	:	2000	1220										
	WO	2001	-US5	0106		W	:	2001	1220										

AB An improved process for producing a substantially pure gamma-phase a quinacridone pigment or pigment derivative involves preparing an aqueous slurry of a crude quinacridone in the presence of caustic alkali and a nonpolar, water-immiscible solvent and heating the slurry at a temperature

above about 120°C. In an example, an aqueous slurry of 2,5-dianilinoterephthalic acid cyclocondensation product, mineral spirits, and NaOH and a surfactant is heated at 150° to give a soft, opaque pigment of gamma form.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L7
     ANSWER 9 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
AN
     2002:391815 CAPLUS
DN
     136:403214
ΤI
     Treatment of high-performance pigments with ether amine
     dispersing salts
IN
     Robertson, George H.; Arthur, Kevin A.; Schwartz, Russell J.;
     Vilner, Stanislav; McLaren, George
PΑ
     Sun Chemical Corporation, USA
     PCT Int. Appl., 15 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
    English
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
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ΡI
     WO 2002040596
                         A2
                                20020523
                                            WO 2001-US51395
                                                                   20011101
    WO 2002040596
                         A3
                                20030109
        W: CA
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE, TR
    US 6471764
                          В1
                                20021029
                                            US 2000-714657
                                                                   20001116
     CA 2429011
                          AΑ
                                20020523
                                            CA 2001-2429011
                                                                   20011101
     EP 1337592
                                20030827
                                                                   20011101
                         A2
                                           EP 2001-987602
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI, CY, TR
PRAI US 2000-714657
                         Α
                                20001116
    WO 2001-US51395
                         W
                                20011101
ΑB
    An ether amine pigment-dispersing salt for enhancing the
    dispersion performance of an organic pigment composition is obtained by
     adding to 100 parts pigment about 1-40 parts dispersing salt.
    The salt is prepared from an amine-terminated polyoxyalkylene and a
    sulfonated pigment. The dispersant-treated pigments
    have improved color strength and transparency. In an example, Jeffamine
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M2070/M2005 mixture is heated with Cu phthalocyaninesulfonic acid to give a

dispersing salt which is used to treat Cu phthalocyanine blue.

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ANSWER 10 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
L7
AN
     2002:368581 CAPLUS
     136:387471
DN
     Polyphosphoric acid conditioning of organic pigments
ΤI
IN
     Sung, Edward H.; Velasquez, Humberto A.;
     Robertson, George H.; Chambers, Veronica L.
PΑ
     Sun Chemical Corporation, USA
     PCT Int. Appl., 12 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
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1711.		_																
	PAT	CENT I	NO.			KIN	D	DATE			APP:	LICAT	ION	NO.		D	ATE	
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ΡI				A2 20020516				WO 2001-US45043						20011101				
	WO 2002038681			A3		20021017												
		W:	CA															
		RW:	AT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR	, GB,	GR,	ΙE,	IT,	LU,	MC,	NL,
			PT,	SE,	TR													
	US	6537	362			B1		2003	0325		US :	2000-	7102	74		2	0001	110
	CA	2428	311			AA		2002	0516		CA :	2001-	2428	311		2	0011	101
	ΕP	1332	184			A2		2003	0806		EP	2001-	9936	52		2	0011	101
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	·GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	FI,	CY,	TR												
PRAI	US	2000	-7102	274		Α		2000	1110									

WO 2001-US45043 20011101

AΒ Crude organic pigments are conditioned in a process which comprises heating, under high shear, 1 part of the crude pigment and about 0.5-1.9 parts polyphosphoric acid (PPA) or PPA Me ester at 90-160°C. This results in a finely divided product with high tinctorial strength and tinctorial stability in polymeric materials. an example, N,N'-dimethyl-3,4,9,10-perylenetetracarboxylic diimide was kneaded with PPA at 120-135° and the product was digested with MeOH to give a pigment suitable for dispersion and extrusion in polyethylene.

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L7
     ANSWER 11 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
AN
     2002:368580 CAPLUS
DN
     136:387420
ΤI
     Production of pigmentary quinacridones
   Sung, Edward; Putney, Jeremy; Robertson, George H.
IN
     Sun Chemical Corporation, USA
PA
     PCT Int. Appl., 22 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                           APPLICATION NO.
    PATENT NO.
                        KIND
                                DATE
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DATE PΙ WO 2002038680 A2 20020516 WO 2001-US50642 20011101 WO 2002038680 **A3** 20030123 W: CA RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR CA 2429050 20020516 CA 2001-2429050 AA 20011101 EP 1334154 20030813 EP 2001-985158 A2 20011101

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR

PRAI US 2000-710273 Α 20001110 WO 2001-US50642 W 20011101

OS CASREACT 136:387420

AB A process for preparing quinacridone pigments involving (a) preparing a reaction mixture of a substituted or unsubstituted 2,5dianilinoterephthalic acid or ester thereof, and at least about 0.5 weight part acid as a dehydrating agent; (b) combining the reaction mixture through one or more heated zones at a temperature of about 80-300°C; and (c) mixing the resulting crude quinacridone composition with a liquid in which the quinacridone pigment is substantially insol. The process is very efficient and provides pigments with good tinctorial strength and transparency. In an example, 2,5-ditoluidinoterephthalic acid was cyclocondensed 2 h at 120-135° using polyphosphoric acid and the product was hydrolyzed to give magenta 2,9-dimethylquinacridone.

L7 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1984:408798 CAPLUS

101:8798 DN

Conditioning of crude phthalocyanine pigment ΤI

IN Johnson, Steven L.; McLaren, George; Robertson, George H.

Sun Chemical Corp., USA PA

Ger. Offen., 14 pp. so

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 3331998	A1	19840322	DE 1983-3331998	19830905
DE 3331998	C2	19920109		
US 4448607	Α	19840515	US 1982-420083	19820920
JP 60195161	A2	19851003	JP 1984-50776	19840316
PRAI US 1982-420083	A	19820920		
GI				

AΒ Crude Cu phthalocyanine (CuPc) [147-14-8] is conditioned by (a) milling in the presence of 5-15% phthalimidomethylphthalocyanine (I; x = 0.6-2.1) or sulfonated I (II; 0.2-2.5 sulfo groups/mol.) but without a milling assistant, e.g., salt or solvent, or (b) by milling in the absence of milling assistant followed by mixing with I or II. The product can be used directly in printing ink or paint formulations.

L7 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1980:606237 CAPLUS

DN 93:206237

TI Treating azo pigments

IN Robertson, George H.

PA Sun Chemical Corp., USA

SO U.S., 4 pp. CODEN: USXXAM

Patent

LA English

FAN.CNT 1

DT

PAN.	CNII				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 4220473	Α	19800902	US 1979-50678	19790621
	GB 2055878	Α	19810311	GB 1980-17468	19800528
	GB 2055878	B2	19830407		
	DK 8002390	Α	19801222	DK 1980-2390	19800603
	DK 155949	В	19890605		
	DK 155949	С	19891030		
	FR 2459270	A1	19810109	FR 1980-13498	19800618
	FR 2459270	B1	19831216		
	DE 3022784	A1	19810122	DE 1980-3022784	19800618
	DE 3022784 .	C2	19880107		
PRAI	US 1979-50678	A	19790621		

AB Nonpenetrating, bright yellow pigments are prepared by treating azo arylamide pigments with dimer acid-based amines. Thus, a pigment suspension prepared by diazotizing 181 parts 3,3'-dichlorobenzidine 2HCl and coupling with 185.9 parts acetoacetanilide is combined with 44.8 parts dimer acid-based tetramine (Kenamine DD3695) and 14.8 parts 70% HOAc, heated to 95°, basified to pH 11.5 with 234.8 parts 50% NaOH, and heated 30 min. A printing ink prepared with this pigment does not penetrate uncoated paper and is superior in gloss, strength, and brightness to an ink prepared with pigment treated with N-tallow-1,3-propanediamine.

- L7 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
- AN 1976:407360 CAPLUS
- DN 85:7360
- TI Pigment composition in bead form
- IN Robertson, George H.; Stirling, John A.
- PA Ciba-Geigy A.-G., Switz.
- SO Ger. Offen., 27 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

r F	AN. CNI I				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
P]	DE 2536719	A1	19760304	DE 1975-2536719	19750818
	DE 2536719	C2	19870527		
	CH 613469	Α	19790928	CH 1975-10604	19750814
	CA 1059704	A1	19790807	CA 1975-233706	19750819
	FR 2282459	A1	19760319	FR 1975-25732	19750820
	JP 51047026	A2	19760422	JP 1975-101696	19750821
	JP 59013547	B4	19840330		
	US 4175979	A	19791127	US 1977-838592	19771003
PF	RAI GB 1974-36700	Α	19740821		
	US 1975-602339	A1	19750806		

AB Nondusting, free-flowing pigment beads are prepared by stirring a mixture of 0.25-2.3 parts pigment (as aqueous dispersion) and 1 part protective colloid with an H2O-insol. organic carrier, m. <100°, at a temperature above the m.p. of the carrier. Thus, a dispersion of 30 parts C.I. Pigment Yellow 13 in 500 parts H2O is heated to 85°, added to a mixture of Natrosol 250 HR (hydroxyethyl cellulose) [9004-62-0] 0.75, dicychlohexyl phthalate (I) [84-61-7] 30, and H2O 200 parts, and stirred 45 min at 85° to give complete absorption of the pigment as 0.5-2 mm beads which can be readily dispersed in PVC. Reducing the I content to 6 parts gives 18 parts beads containing only 64% of the pigment.

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	(FILE	'CAP	LUS' ENTERED AT 15:40:23 ON 10 SEP 2005)
			DEL HIS
L1		18	SEA ABB=ON PLU=ON (ETHOXYLATE(W)ALKYL(W)PHENOL OR NONYLPHENOX
		•	Y(W) POLY(W) ETHYLENEOXY(W) ETHANOL OR OCTYLPHENOXY(W) POLY(W) ETHYL
			ENEOXY (W) ETHANOL)
L2		4	SEA ABB=ON PLU=ON L1 AND PIGMENT
			D 1-4 BIB ABS
			E SUNG EDWARD/AU
L3		8	SEA ABB=ON PLU=ON ("SUNG EDWARD"/AU OR "SUNG EDWARD H"/AU)
			E ROBERTSON GEORGE/AU
L4		51	SEA ABB=ON PLU=ON "ROBERTSON GEORGE H"/AU
			E VELASQUEZ HUMBERTO/AU
L5		3	SEA ABB=ON PLU=ON ("VELASQUEZ HUMBERTO"/AU OR "VELASQUEZ
			HUMBERTO A"/AU)
L6		52	SEA ABB=ON PLU=ON L3 OR L4 OR L5
L7		14	SEA ABB=ON PLU=ON L6 AND PIGMENT
			D QUE L7 STAT
			D 1-14 BIB ABS

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